

REMARKS

In the Final Office Action, Examiner Shah rejected pending claims 1-3 and 5-12 on various grounds. The Applicant responds to each rejection as subsequently recited herein:

- A. Examiner Shah rejected claims 1, 3, 5-7 and 9-11 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,201,476 B1 to *Depeursinge* et al.

The Applicant has thoroughly considered Examiner Shah's remarks concerning the patentability of claims 1, 3, 5-7 and 9-11 over *Depeursinge*. The Applicant has also thoroughly read *Depeursinge*. To warrant this §102(b) rejection of claims 1, 3, 5-7 and 9-11, *Depeursinge* must show each and every limitation of claims 1, 3, 5-7 and 9-11 in as complete detail as in contained claims 1, 3, 5-7 and 9-11. See, MPEP §2131. The Applicant respectfully traverses this §102(b) rejection of claims 1, 3, 5-7 and 9-11, because, among other things, *Depeursinge* fails to show "characterized in that the activity monitor is operable to monitor and process the sensor signals discontinuously in time and the processor is operable to monitor the sensor signals in turn" in as complete detail as recited in independent claim 1, and "characterized in that the sensor signals are monitored and processed discontinuously in time and the sensor signals are monitored in turn" in as complete detail as recited in independent claim 9.

As to the traversal, a proper understanding of *Depeursinge* reveals the fact that *Depeursinge* teaches a concurrent monitoring of motion sensor signals. Specifically, as shown in FIGS. 1 and 2, *Depeursinge* teaches three motion sensors 2a-2c having outputs that are concurrently being monitored and processed by a signal processor 6. In particular, an A/D converter 5 concurrently provides the motion signals from motion sensors 2a-2c to a processing unit 7, which in turns concurrently processes all of the motion signals whereby a processing unit 8 generates a neural signal based on all of the motion signals and a processing unit 9 generates a comparison signal based on the neural signal that enables a determination of a probability of that the motion signals are collectively indicating a fall signal. See, *Depeursinge* at column 2, line 34 to column 4, line 7.

Furthermore, the Applicant respectfully asserts that Examiner Shah's argument that it would be impossible to simultaneously/concurrently monitor the plurality of sensor signals from motion sensors 2a-2c received by processor 60 is erroneous in view of the teachings of *Depeursinge*. Specifically, "in turn" monitoring of sensors as recited in independent claims 1 and 9 encompasses a time-division monitoring of the sensors and *Depeursinge* fails to teach or suggest any type of time-division monitoring of motion sensors 2a-2c by A/D converter 5. Thus, with the two sensor embodiment taught by *Depeursinge* in FIG. 3, A/D converter 5 must have two (2) analog inputs that are converted into a digital output for a processing unit 7 wherein the digital output has a first subset of bits representative of one motion sensor (e.g., 2a) and a second subset of bits representative of the other motion sensor (e.g., 2b). The first subset of bits representative of one motion sensor (e.g., 2a) are fed to a differentiator 7a of circuit 7A and a low pass filter 7C, and the second subset of bits representative of the other motion sensor (e.g., 2b) are fed to a differentiator 7a of circuit 7B and a low pass filter 7D. This arrangement supports processor unit 8 continuous monitoring of the outputs processing unit 7 to thereby execute a behavior analysis of the motion sensors. As such, the Applicant respectfully asserts that *Depeursinge* actually teaches away from any type of time-division monitoring of motion sensors 2a-2c by A/D converter 5 because this would degrade the behavior analysis of the motion sensors by processor unit 8.

Withdrawal of the rejection of independent claims 1 and 9 under 35 U.S.C. §102(b) as being anticipated by *Depeursinge* is therefore respectfully requested.

Claims 3 and 5-7 depend from independent claim 1. Therefore, dependent claims 3 and 5-7 include all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Applicant that dependent claims 3 and 5-7 are allowable the *Depeursinge* for at least the same reason as set forth herein with respect to independent claim 1 being allowable *Depeursinge*. Withdrawal of the rejection of dependent claims 3 and 5-7 under 35 U.S.C. §102(b) as being anticipated by *Depeursinge* is therefore respectfully requested.

Claims 10 and 11 depend from independent claim 9. Therefore, dependent claims 10 and 11 include all of the elements and limitations of independent claim 9. It is therefore respectfully submitted by the Applicant that dependent claims 10 and 11 are allowable the *Depeursinge* for at least the same reason as set forth herein with respect to independent claim 9 being allowable *Depeursinge*. Withdrawal of the rejection of dependent claims 10 and 11 under 35 U.S.C. §102(b) as being anticipated by *Depeursinge* is therefore respectfully requested.

- B.** Examiner Shah rejected claims 1-3 and 5-12 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,317,304 to *Choi* et al.

The Applicant has thoroughly considered Examiner Shah's remarks concerning the patentability of claims 1-3 and 5-12 over *Choi*. The Applicant has also thoroughly read *Choi*. To warrant this §102(b) rejection of claims 1-3 and 5-12, *Choi* must show each and every limitation of claims 1 and 3-13 in as complete detail as in contained claims 1-3 and 5-12. See, MPEP §2131. The Applicant respectfully traverses this §102(b) rejection of claims 1-3 and 5-12, because, among other things, *Choi* fails to show "characterized in that the activity monitor is operable to monitor and process the sensor signals discontinuously in time and the processor is operable to monitor the sensor signals in turn" in as complete detail as recited in dependent claim 1, and "characterized in that the sensor signals are monitored and processed discontinuously in time and the sensor signals are monitored in turn" in as complete detail as recited in dependent claim 9.

As to the traversal, a proper understanding of *Choi* reveals the fact that *Choi* teaches a concurrent monitoring of sensor signals. Specifically, as shown in FIGS. 5 and 6, *Choi* is premised on the concept of a trigger capturing circuit 23 concurrently receiving motion signals from a tamper switch 21 and a motion sensor 22 in a continuous manner to thereby trigger an activation of a microprocessor 24 upon either signal indicating motion. See, *Choi* at column 4, line 15 to column 6, line 62.

Furthermore, the Applicant respectfully asserts that Examiner Shah's argument the stand-by/active modes of microprocessor 24 imply that motion signals from tamper switch 21 and motion sensor 22 are not continuously generated and thus, microprocessor inevitably monitors the sensor signals in turn is erroneous in view of the teachings of *Choi*. First, *Choi* teaches trigger capture circuit 23 as the component for monitoring tamper switch 21 and motion sensor 22 to thereby be able to transition microprocessor 24 from a standby mode to an active mode as needed based on the monitoring of tamper switch 21 and motion sensor 22. Second, *Choi* teaches tamper switch 21 will generate a signal or pulse when its status changes within the circuit and similarly, motion sensor 22 will generate a signal or pulse when its status changes within the circuit. As such, it is imperative for trigger capturing circuit 23 to continually monitor both tamper switch 21 and motion sensor 22 in concurrence to thereby prevent trigger capturing circuit 23 from failing to capture any generated signal or pulse by tamper switch 21 and/or motion sensor 22. In fact, the Applicant respectfully asserts that the "in turn" monitoring of sensors as recited in independent claims 1 and 9 encompasses a time-division monitoring of the sensors and *Choi* teaches away from any type of time-division monitoring of tamper switch 21 and motion sensor 22 because *Choi* teaches that trigger capturing circuit 23 must monitor the duration, frequency and intensity of each signal/pulse and the time duration between each signal/pulse. Thus, any time-division monitoring of monitoring tamper switch 21 by trigger capturing circuit 23 would impede the capturing by trigger capturing circuit 23 of the duration, frequency and intensity of each signal/pulse from tamper switch 21 and the time duration between each signal/pulse of tamper switch 21. The same is true for motion sensor 22.

Withdrawal of the rejection of independent claims 1 and 9 under 35 U.S.C. §102(b) as being anticipated by *Choi* is therefore respectfully requested.

Claims 2, 3 and 5-7 depend from independent claim 1. Therefore, dependent claims 2, 3 and 5-7 include all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Applicant that dependent claims 2, 3 and 5-7 are allowable over *Choi* for at least the same reason as set forth herein with respect to independent claim 1 being

allowable over *Choi*. Withdrawal of the rejection of dependent claims 2, 3 and 5-7 under 35 U.S.C. §102(b) as being anticipated by *Choi* is therefore respectfully requested.

Claims 10-12 depend from independent claim 9. Therefore, dependent claims 10-12 include all of the elements and limitations of independent claim 9. It is therefore respectfully submitted by the Applicant that dependent claims 10-12 are allowable over *Choi* for at least the same reason as set forth herein with respect to independent claim 9 being allowable over *Choi*. Withdrawal of the rejection of dependent claims 10-12 under 35 U.S.C. §102(b) as being anticipated by *Choi* is therefore respectfully requested.

- C. Examiner Shah rejected claims 1-3 and 5-12 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication 2003/014660 A1 to *Verplaetse et al.*

The Applicant has thoroughly considered Examiner Shah's remarks concerning the patentability of claims 1-3 and 5-12 over *Verplaetse*. The Applicant has also thoroughly read *Verplaetse*. To warrant this §103(a) rejection of claims 1-3 and 5-12, *Verplaetse* must teach or suggest each of the limitations of claims 1-3 and 5-12. See, MPEP §2143. The Applicant respectfully traverses this §103(a) rejection of claims 1-3 and 5-12, because, among other things, *Verplaetse* fails to teach or suggest "characterized in that the activity monitor is operable to monitor and process the sensor signals discontinuously in time and the processor is operable to monitor the sensor signals in turn" as recited in dependent claim 1, and "characterized in that the sensor signals are monitored and processed discontinuously in time and the sensor signals are monitored in turn" as recited in dependent claim 9.

As to the traversal, a proper understanding of *Verplaetse* reveals the fact that *Verplaetse* teaches a concurrent monitoring of motion sensor signals. Specifically, as best shown in FIG. 5D, *Verplaetse* teaches an accelerometer having two motion sensor outputs 6 and 7 coupled via respective op-amps buffers 280 and 282 to A/D ports of microcontroller 38. See, *Verplaetse* at paragraph [0045].

Furthermore, the Applicant respectfully traverses Examiner Shah's argument that that fact that accelerometer 36 does not produce sensor signals continuously in time implies that microcontroller 38 monitors sensor outputs 6 and 7 via respective op-amps buffers 280 and 282 in turn when a successive signal is produced after accelerometer 36 has been powered down in erroneous in view of the teachings of *Verplaetse* and interpretation of "in turn" as recited in the claims. First, as previously stated, monitoring signals "in turn" as recited in independent claims 1 and 9 encompasses a type of time-division monitoring of the signals. For example, time would be divided into time periods with a first signal being monitored during odd time periods and a second signal being monitored during even time periods. Second, upon being powered up, *Verplaetse* fails to teach or suggest accelerometer 36 outputting signals 6 and 7 based on any type of time-division monitoring and also fails to teach or suggest microcontroller 38 inputting signals 6 and 7 based on any type of time-division monitoring. In fact, *Verplaetse* teaches away from accelerometer 36 outputting signals 6 and 7 based on any type of time-division monitoring and microcontroller 38 inputting signals 6 and 7 based on any type of time-division monitoring because is it imperative microcontroller 38 continually monitor signals 6 and 7 in concurrence to thereby be able to determine if any unauthorized movement has occurred under the principles of *Verplaetse*.

Withdrawal of the rejection of independent claims 1 and 9 under 35 U.S.C. §103(a) as being unpatentable over *Verplaetse* is therefore respectfully requested.

Claims 2, 3 and 5-7 depend from independent claim 1. Therefore, dependent claims 2, 3 and 5-7 include all of the elements and limitations of independent claim 1. It is therefore respectfully submitted by the Applicant that dependent claims 2, 3 and 5-7 are allowable the *Verplaetse* for at least the same reason as set forth herein with respect to independent claim 1 being allowable *Verplaetse*. Withdrawal of the rejection of dependent claims 2, 3 and 5-7 under 35 U.S.C. §103(a) as being unpatentable over *Verplaetse* is therefore respectfully requested.

Claims 10-12 depend from independent claim 9. Therefore, dependent claims 10-12 include all of the elements and limitations of independent claim 9. It is therefore respectfully

submitted by the Applicant that dependent claims 10-12 are allowable the *Verplaetse* for at least the same reason as set forth herein with respect to independent claim 9 being allowable *Verplaetse*. Withdrawal of the rejection of dependent claims 10-12 under 35 U.S.C. §103(a) as being unpatentable over *Verplaetse* is therefore respectfully requested.

SUMMARY

The Applicant respectfully submits that claims 1-3 and 5-12 fully satisfy the requirements of 35 U.S.C. §§ 102, 103 and 112. In view of the foregoing, favorable consideration and early passage to issue of the present application is respectfully requested. If any points remain in issue that may best be resolved through a personal or telephonic interview, Examiner Shah is respectfully requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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